| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/748,317 | 12/29/2003 | Alex Brown | 1801270.00137US1 | 8023 |

| 23483      7590      09/13/2007 |
|---|
| WILMER CUTLER PICKERING HALE AND DORR LLP |
| 60 STATE STREET |
| BOSTON, MA 02109 |

| EXAMINER |
|---|
| KHATRI, ANIL |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2191 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 09/13/2007 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

michael.mathewson@wilmerhale.com
teresa.carvalho@wilmerhale.com
tina.dougal@wilmerhale.com

PTOL-90A (Rev. 04/07)

| | Office Action Summary | Application No. | Applicant(s) |
| :-- | :-- | :-- | :-- |
| | | 10/748,317 | BROWN ET AL. |
| | | Examiner | Art Unit |
| | | Anil Khatri | 2191 |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *12 July 2007*.

2a)☒ This action is **FINAL.**     2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-123* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18, 29-59, 70-100 and 111-123* is/are rejected.

7)☒ Claim(s) *19-28, 60-69 and 101-110* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## *Response to Amendment*

1.      This action is in response to the request for reconsideration filed on 7/12/07.

2.      As per applicant's request claims 83-123 has been are amended.

3.      Examiner has withdrawn USC 35 101 rejection on claims 1-123 upon clarification and amendment filed by the applicant.

4.      Examiner has withdrawn USC 35 112 rejection on claims 1-123 upon clarification filed by the applicant.

5.      As per applicant request claims 1-18, 29-59, 70-100 and 111-123 has been considered but they are not persuasive.

6.      Claims 19-28, 60-69 and 101-110 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7.      Claims 1-18, 29-59, 70-100 and 111-123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams USPN 6,578,193 in view of Baumgart et al USPN 6,578,194.

**In remarks applicant argues,**

I. Cited reference Adam does not "translate subject program code executable by a subject processor into target program code executable by a target processor" as to claim 1.

II. Further does not perform "identifying certain subject program code executable by a subject processor having corresponding native code executable by the target processor".

III. Cited reference Baumgart does not teach "translating from subject code executable by subject processor into target code executable by a target processor".

IV. Further, Baumgart does not teach, "executing the native function instead of the subject function in the translation of subject program code.

**In response to applicant arguments,**

I. It was noted that cited reference Adam teaches translate subject program code executable by a subject processor into target program code executable by a target processor (columns 9-10, lines 65-67 and 1-10, In an embodiment of an apparatus and method in accordance with the invention, the source code 120 may simply contain each of the virtual machine instructions 91 in the virtual machine language. The source code 120 may be assembled or compiled by an assembler 122 or compiler 122 depending on whether the language is an assembled or a compiled language. The assembler 122 or compiler 122 generates (emits, outputs) virtual machine code. The output of the assembler 122 or compiler 122 is object code 124. The object code 124 may be linked by a linker 126 to produce an executable code 128. The executable code 128 may be loaded by a loader 129 into main memory 18, 20 as the loaded executable 130). Therefore, examiner interprets that source code or subject code get executed and translated and get loaded and can be used by the same processor or target processor once it has been compiled etc.

II. It was also noted that Adam teaches identifying certain subject program code executable by a subject processor having corresponding native code executable by the target processor (column 8, lines 44-64, In FIG. 3, the builder 86 may include source code 90, virtual machine source code 90. The source code 90 may be assembled or compiled by an assembler 92 or compiler

92, as appropriate. The virtual machine may operate adequately, whether dependent on

assembly or compilation. The assembler 92 or compiler 92 operates for native code. Native

code, may be thought of as code executable directly on a processor 12 in the apparatus 10. By

native code is indicated the processor-specific instructions 91 that may be executed directly by a

processor 12. By directly is not necessarily meant that the native code is always written in

binary ones and zeros. Native code 106 may be written in a language to be assembled 92 or

compiled 92 into object code 94 and to be eventually linked 96 into an executable 100 loaded

for execution. Executables 100 may then be loaded 99 into a memory device 20, 18

for ready execution on or by an execute unit 72 of a processor 12. An executable 100 stored in

a non-volatile storage device 16 may sometimes be referred to as an executable file. Once

properly loaded 99 into the main memory 18, 20 associated with a processor 12 an executable

100 may be executed by a processor 12. Therefore, examiner believes that method teaches

program code executable by a subject processor having corresponding native code executable

by the target processor.

III. It was also noted that Baumgart teaches translating from subject code executable by subject

processor into target code executable by a target processor (column 2, lines 27-43, the computer

translates the source program into an object module which includes a text portion and a fix-up

target defining a location within the text portion. A relocation directory includes information

indicating a referenced item; reference type information indicating a type of the referenced

item; and operation type information indicating an operation performed on the referenced item

and contents of the fix-up target. The computer then processes the reference type and the

operation type information in the relocation directory and determines a result of performing the

operation specified in the operation type information on the referenced item and the contents of

the fix-up target. The computer then relocates into the location of the fix-up target the result of

the operation performed on the referenced item and the contents of the fix-up target). Therefore,

examiner interprets that translating from subject code executable by subject processor into

target code executable by a processor is disclosed.

IV. It was noted that cited reference Adam teaches executing the native function instead of the

subject function in the translation of subject program code (column 9, lines 9-27, ode segments

106a-n are written in native code. When any code segment 106a-n (e.g. 106a, 106b, 106c,

106n) is executed, the result is the desired output from the corresponding virtual machine

instruction 91a-n (e.g. 91a, 91b, 91c, 91n, respectively). Virtual machine instructions 91a-n

identify every available function that may be performed by the virtual machine 90. The

instructions 106a-n illustrate segments 106a-n, implementations in native code, executable the

hardware, processor 12, that must produce the result associated with each individual virtual

machine instruction 91a-n. Each of the code segments 106a-n contains a FETCH instruction

108 DECODE instruction 110 and JUMP instruction 112. The instructions 108-112 promote

pipelining. Thus, the subject of each of the respective instructions decode 110, fetch 108, and

JUMP 112 correspond to the very next instruction, the second next instruction, and the third

next instruction, respectively, following an instruction 91a-n being executed and corresponding

to a code segment 106a-n in question). Thus, limitations are met by the references.

## *Conclusion*

8.      **THIS ACTION IS MADE FINAL.**  Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action.  In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Anil Khatri whose telephone number is 571-272-3725.  The

examiner can normally be reached on M-F 8:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wei Zhen can be reached on 571-272-3708.  The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

***

**ANIL KHATRI**
**PRIMARY EXAMINER**